



Proper Cleaning of Non-Food Contact Surfaces

The environmental impacts of producing, using, and disposing of bleach are substantial. Chlorine bleach, when diluted with water, is a very effective and economical sanitizing agent for food contact surfaces; however, because of its toxic characteristics, it should not be used for general surface or floor cleaning. In the production of chlorine, some chlorine plants continue to use outdated and dirty methods, including the use of mercury. Mercury-cell chlorine plants release more mercury per plant on average than coal-fired power plants.¹ In the use of chlorine, the active ingredient sodium hypochlorite can cause severe eye and skin damage, is non-biodegradable, promotes poor indoor-air quality, kills microorganisms in water bodies, and can produce toxic solutions when it binds with other chemicals or metals in water bodies.

Misconceptions of the bleach water bucket

A towel saturated with a bleach-water solution is commonly used to clean dining tables, pick up spills, and wipe off knives, cutting boards, and kitchen equipment. Often this towel is believed to be capable of cleaning and sanitizing anything it contacts; however, the bleach-water solution only serves to keep the immersed towel sanitized, prevent bacterial growth in the bucket, and prevent the spread of bacteria to applied surfaces. This bleach-saturated towel should only be used to wipe up spills and remove food particles from kitchen equipment without introducing any new bacteria – not to sanitize the equipment.



Bleach is capable of dissolving soils, but it is not designed to lift soils to clean the surface. Because biofilm, a tiny city in which microbial cells live, can build up on surfaces from grease, oils, and food particles that neutralize the chlorine, the bleach towel cannot sanitize surfaces in one step; therefore, trying to clean non-food contact surfaces with this towel does not sanitize or clean.

Key Definitions:

Clean/wash: The purpose of this step is to remove soils from surfaces to render the surface visibly clean.

Rinse/dry: The rinse step removes the residue that is still present on the surface after the clean/wash step with the application of a water rinse if feasible. For dining surfaces and equipment, wiping the surface with a clean dry towel is effective in residue removal.

Sanitize: The purpose of a sanitize step is to reduce the number of microorganisms to a safe level. The clean/wash and rinse/dry steps must first be followed to then effectively sanitize surfaces.

How can I clean my dining tables?²

Soap and hot water: A hot soapy water solution with an immersed towel is great to wipe off and clean tables. The soap-water solution picks up dirt and oils to remove the biofilm. The tables should then be wiped with a dry towel to remove any soap residue after cleaning. The soap-water solution and towel should be replaced when moderately soiled, or every couple hours, whichever occurs first.

Spray & wipe: An environmentally preferable all-purpose cleaner can be sprayed onto a table (follow manufacturer's instructions) and wiped down with a dry cloth towel or paper towel to remove dirt. The paper towel should be disposed of when soiled. A cloth towel should be laundered after repeated use, before it's soiled or wet.

What if I want to sanitize my dining tables?

Sanitizing of non-food contact surfaces in the dining area is not regulated or mandated in Colorado. If sanitization is important to you to minimize the spread of bacteria, it can be accomplished by the three-step wash/clean, rinse, and sanitize method. First clean the surface as mentioned above, rinse with a clean towel, and sanitize with sanitizing spray solution and let air dry.



Again, the 3-step sanitization method cannot be accomplished by a bleach-water solution and towel and simply wiping down the table. **This** procedure does not clean, rinse, or sanitize the surface.

How do I clean other non-food contact surfaces like floors and walls?

It is best to use an environmentally preferable cleaner to lift stains or a degreaser to dissolve stains when cleaning floors and walls. Bleach is a sanitizer and can only dissolve or whiten some stains. Once dirt and stains neutralize the bleach-water solution, it has no effective power to clean. It is unnecessary to sanitize walls and floors.

References:

- [1] Poison Plants II: 19th Century Chlorine Factories Still Major Mercury Source, Oceana, January 2006. www.oceana.org/index.php?id=1707
- [2] Boulder County Public Health Consumer Protection Staff, August 2006. www.bouldercountyfood.org

The contents of this resource sheet are accurate to the best knowledge of PACE staff. All references to products are for informational purposes only and do not represent an endorsement of any particular product by the PACE Program. For more information, please contact PACE at Boulder County Public Health at 303-441-1183.